Safety thru-beam sensor transmitter
SLA12-LAS-T/124

- Sensing range 12 m
- Visible red light, pulsed LASER light
- Laser class 1, eyesafe
- Performance Level PL e
- Clearly visible LED functional display and pre-fault indicator on the receiver
- Sturdy housing
- Waterproof, degree of protection IP67
- Operation on SB4-series control units (SafeBox)

Safety thru-beam sensor with laser

Safety Information

Laser Class 1 Information
The irradiation can lead to irritation especially in a dark environment. Do not point at people!
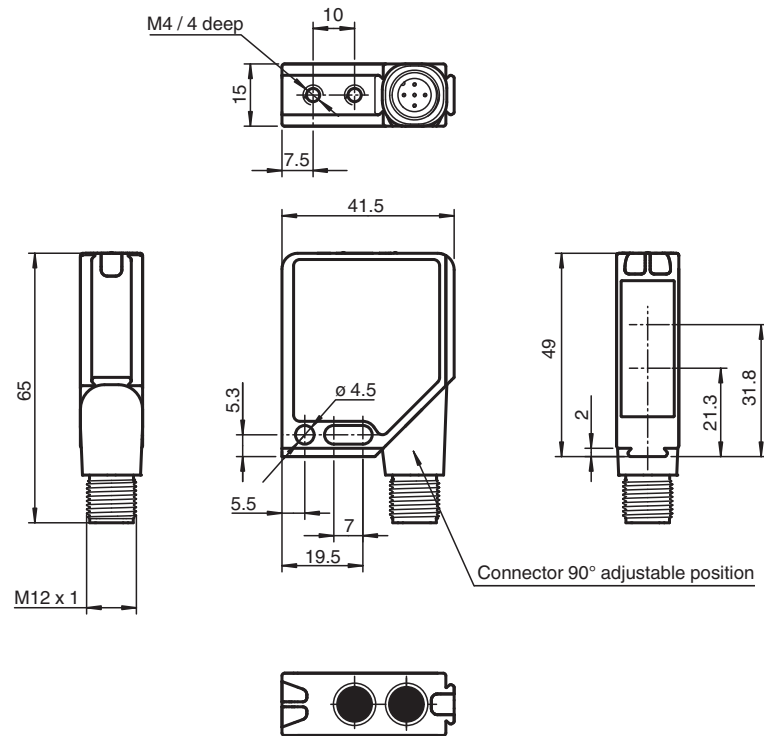Maintenance and repairs should only be carried out by authorized service personnel!
Attach the device so that the warning is clearly visible and readable.
The warning accompanies the device and should be attached in immediate proximity to the device.
Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".
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Dimensions

M4 / 4 deep

10

15

7.5

41.5

65

5.3

ø 4.5

5.5

7

19.5

49

2

21.3

31.8

M12 x 1

Connector 90° adjustable position

Technical Data

System components	
Emitter	SLA12-LAS-T/124
Receiver	SLA12-R/124
General specifications	
Effective detection range	0.2 ... 12 m
Light source	laser diode
Light type	modulated visible red light
Laser nominal ratings	
Note	LASER LIGHT , DO NOT STARE INTO BEAM
Laser class	1
Wave length	650 nm
Beam divergence	1 mrad
Pulse length	35 µs
Repetition rate	200 Hz
Target size	static: 10 mm dynamic: 30 mm (at v = 1.6 m/s of the obstacle)
Alignment aid	LED red
Angle of divergence	< 5 °
Functional safety related parameters	
Safety Integrity Level (SIL)	SIL 3
Performance level (PL)	PL e
Category	Cat. 4
Mission Time (T_M)	20 a

Release date: 2020-11-09 Date of issue: 2020-11-09 Filename: 214723_eng.pdf

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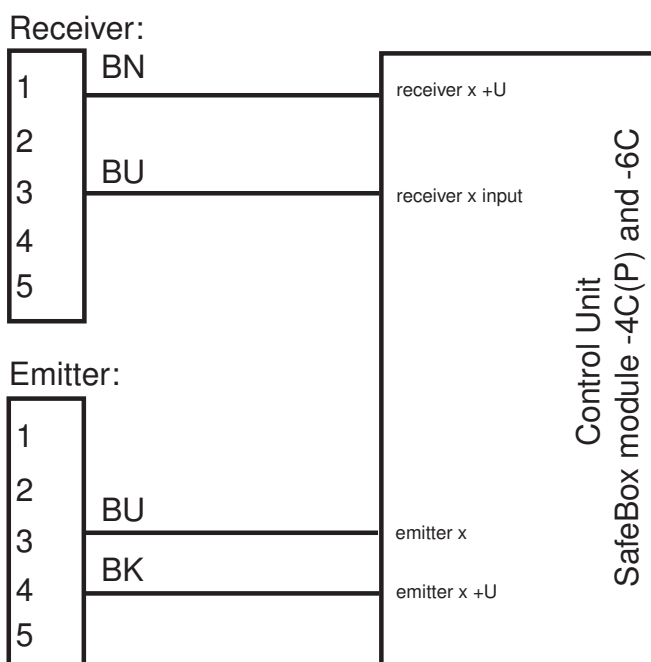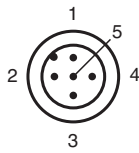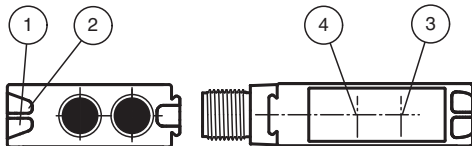fa-info@us.pepperl-fuchs.com

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Technical Data

PFH_d		4.4 E-10
Type		4
Indicators/operating means		
Operation indicator		LED green
Function indicator		LED yellow: 1. LED lit constantly: signal > 2 x switching point (function reserve) 2. LED flashes: signal between 1 x switching point and 2 x switching point 3. LED off: signal < switching point
Electrical specifications		
Operating voltage	U_B	Power supply via control unit
Conformity		
Functional safety		ISO 13849-1
Product standard		EN 61496-1 ; IEC 61496-2
Laser safety		IEC 60825-1:2007
Approvals and certificates		
CE conformity		CE
CCC approval		CCC approval / marking not required for products rated ≤36 V
Approvals		TÜV
Ambient conditions		
Ambient temperature		0 ... 50 °C (32 ... 122 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Relative humidity		max. 95 %, not condensing
Mechanical specifications		
Degree of protection		IP67 according to EN 60529
Connection		5-pin M12 x 1 connector with metal thread, 90° rotatable
Material		
Housing		Frame: nickel plated, die cast zinc, Laterals: glass-fiber reinforced plastic PC RAL 1021 (yellow)
Optical face		Plastic pane
Mass		per device 60 g

Connection

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Connection Assignment

```
    1
       5
2  (  • • •  )  4
       3
```

Assembly

1	Operating display green
2	Switch state yellow
3	Optical axis emitter/Optical axis receiver
4	Alignment indicator red

Characteristic Curve

Characteristic response curve

Offset Y [mm]

Distance X [m]

Relative received light strength

Stability control

Distance X [m]

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Lateral interval to mirroring surfaces

Distance Y [mm]
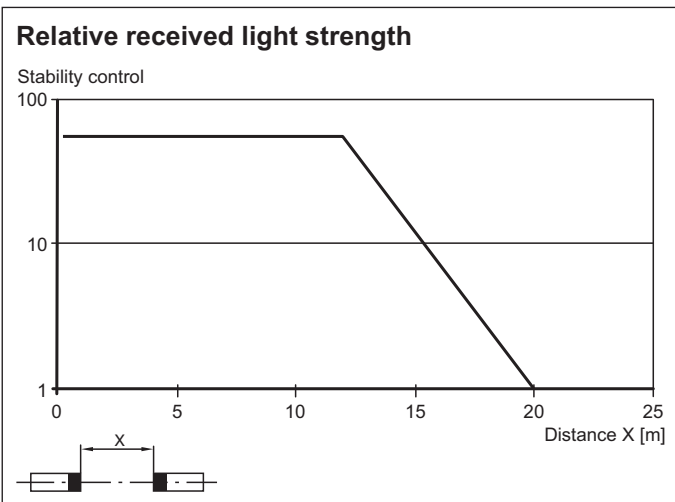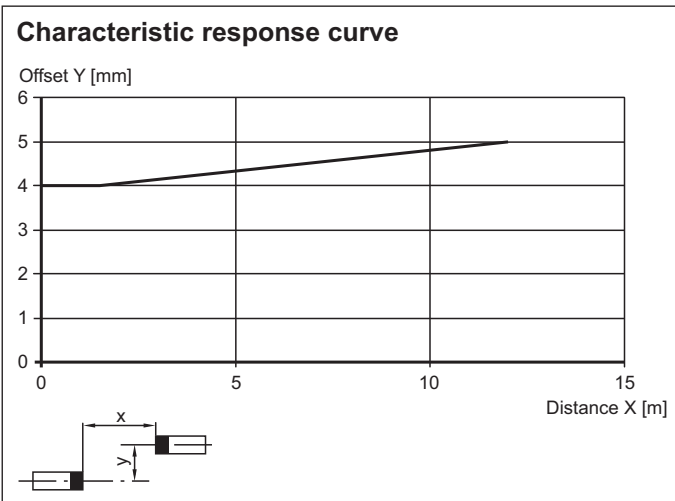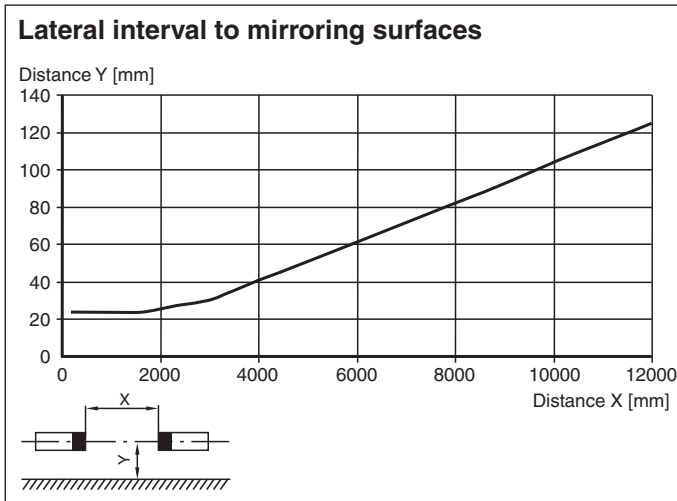
Matching System Components

	SB4-OR-4CP-2E	Safety control unit
	SB4-OR-4CP-4C-2E	Safety control unit
	SB4-OR-4CP-4M-2E	Safety control unit
	SB4-OR-4CP-4C	Safety control unit
	SB4-OR-4CP-4M	Safety control unit
	SB4-OR-4CP-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP	Safety control unit
	SB4-OR-4CP-B-B-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP-B	SB4 series safety control unit with 1 optional module slot for functional enhancement
	SB4-OR-4CP-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OI1-4CP-4C-4C-4C	Safety control unit
	SC HDM-10 24V	Safety control unit
	SC HDM-12 24V	Safety control unit

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Accessories

	SLA-1-M	Deviation mirror
	OMH-06	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm
	OMH-MLV12-HWG	Mounting bracket for series MLV12 sensors
	OMH-MLV12-HWK	Mounting bracket for series MLV12 sensors
	OMH-K01	dove tail mounting clamp
	OMH-K02	dove tail mounting clamp
	V15-W-5M-PVC	Female cordset, M12, 5-pin, PVC cable

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Indication

Additional information

For much easier alignment even for lond distance applications, an additional red LED is located in the receivers optics:

- LED constantly illuminated:

  signal strength < switching level

- LED flashes:

  signal strength is between 1-fold switching level and 2-fold switching level

- LED off:

  signal strength < 2-fold switching level (function reserve)

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